

FGF-21, Human

Cat. No.: Z02739-1

Size: 1.0 mg

Synonyms: Fibroblast Growth Factor-21(FGF-21), Human;

Description:

Fibroblast growth factor 21 (FGF21) belongs to the large FGF family which has at least 23 members. All FGF family members are heparin binding growth factors with a core 120 amino acid (aa) FGF domain that allows for a common tertiary structure. FGFs are expressed during embryonic development and in restricted adult tissues. Four distinct but related classes of FGF receptors, FGF R1, 2, 3, and 4, exist. FGF-21, in the presence of betaKlotho as a protein cofactor, signals through the FGFR 1c and 4 receptors and stimulates insulin independent glucose uptake by adipocytes.

Amino Acid Sequence:

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00001 HPIPDSSPLL QFGGQVRQRY LYTDDAQTE AHLEIREDT  
00041 VGGAADQSPE SLLQLKALKP GVIQILGVKT SRFLCQRPDG  
00081 ALYGSLHFDPEACSFRELL EDGYNVYQSE AHGLPLHLP  
00121 NKSPHRDPAP RGPAPFLPLP GLPPALPEPP GILAPPPDV  
00161 GSSDPLSMVG PSQGRSPSYA S
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Source: *E. coli*

Species: Human

Biological Activity: Fully biologically active when compared to standard. The ED₅₀ as determined by thymidine uptake assay using FGF-receptors transfected BaF3 cells is less than 0.5 µg/ml, corresponding to a specific activity of > 2.0 × 10³ IU/mg in the presence of 5 µg/ml of rMuKlotho-β and 10 µg/ml of heparin.

Molecular Weight: Approximately 19.4 kDa, a single non-glycosylated polypeptide chain containing 181 amino acids.

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Purity: > 96 % by SDS-PAGE and HPLC analyses.

Endotoxin Level: Less than 1 EU/µg of rHuFGF-21 as determined by LAL method.

Storage: This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze/thaw cycles.